ABSTRACT

An airborne time domain electromagnetic surveying system is provided. The system includes a tow assembly with a flexible support frame. The flexible support frame spaced apart from the aircraft includes a transmitter section with a transmitter loop and a receiver section with a sensor aligned with the central axis of the transmitter section. The flexible support frame has a lightweight modular structure that enables the surface area of the transmitter section to be increased and decreased to suit particular survey applications. The transmitter loop sends a pulse in an "ON" interval, and in an "OFF" interval the sensor measures the earth response to the pulse. The tow assembly also includes a sensor for generating selected survey data in the "ON" interval. A transmitter driver enables the creation of earthbound pulse. The system components are linked to a computer and control computer program linked thereto for controlling the functions thereof. The invention also includes a method for producing survey data using the tow assembly of the invention.